



## VARIABLE-SECTIONED ROLLED TOWEL

### BACKGROUND OF THE INVENTION

#### Field of the Invention

The present invention relates to rolled towels or sheets. In a specific aspect, it relates to improved sectioning of rolled towels such as paper towel rolls.

#### Description of Related Art

10 Rolled towels such as paper towel rolls, whether they are actually made of paper (for instance, the absorbent materials from which common household paper towels are fashioned) or made of cloth, felt or some other material, are well-known in the art. For instance, any number of brands of paper towel rolls are commonly sold for various uses: from auto mechanic shop work to cleaning the kitchen and other household chores. Such paper towel rolls are perforated into uniform sheets such that each sheet of paper towel separated from the roll is substantially the same size. A common problem encountered during the use of many such uniform paper towel rolls is the need for sheets of specific or varying sizes and shapes, depending on the use for which they are needed. Thus, users of paper towels are often forced to make one size (and shape) fit all.

Others have recognized this and similar problems related to uniform paper towel rolls in general and suggested remedies. United States Patent No. 5,809,568, issued to Morris-Jones, discloses a paper towel roll wherein individual sheets are perforated to more readily allow the sheets to be used as bibs. The patent discloses alternating sheets of the same size, but with

different perforations therein such that the first sheet is perforated for use with one size baby and the second sheet is perforated for use with another size baby. United States Patent No.

4,627,117, issued to Morishita, discloses a paper towel roll wherein a cover for a lavatory sheet is formed using adjoining sheets on the roll. To accomplish this, the perforations between the

5 sheets alternate between two different patterns. The perforations are, however, the same distance apart thus resulting in all sheets on the roll being substantially the same size. United States

Patent No. 3,877,576, issued to Kishi, discloses a paper towel roll wherein the roll is constructed of two lengths of paper, each with perforations at set intervals, that are overlapped one on the other and wound onto the roll -- thus forming two layers -- such that the perforations of each web

10 are offset 180° from the other. United States Patent No. 453,003, issued to Hicks, discloses a paper towel roll wherein two rolls are joined side-by-side with the perforations for each roll set at regular intervals, but offset 180° from the perforations on the other roll.

Each of these suggested remedies do not, however, address a common problem often encountered when using rolled towels such as paper towels. Paper towels are often used in  
15 conjunction with dinner. They are used both as disposable placemats and as disposable napkins. But paper towels of uniform size are inherently unsuitable for use as both placemats and napkins because of the larger size of standard placemats as compared to standard napkins. A need exists for a, among other things, cost-effective solution to the aforementioned problem.

## **SUMMARY OF THE INVENTION**

20 Based on the foregoing, it is an object of the present invention to provide rolled towels such as paper towel rolls that facilitate use of the sheets thereon as appropriately sized placemats and napkins.

It is another object of the present invention to provide such facilitation in an aesthetically pleasing fashion.

It is another object of the present invention to provide such facilitation cost-effectively.

It is another object of the present invention to provide such rolled towels such as paper towel rolls while requiring a minimum of additional manufacturing steps above that common to rolled towels such as paper towel rolls in general.

In the light of these and other objectives, the present invention presents a novel and nonobvious rolled towel -- for instance a paper towel roll -- construction to facilitate use of the sheets thereon as appropriately sized placemats and napkins, such construction comprising perforating the rolled towel at alternating intervals to form alternating sheets of two different lengths, the first length consistent with the size of a placemat and the second length consistent with the size of a napkin. Thus, the rolled towel consists of alternating placemat and napkin sheets, the placemat sheets being longer in length such that they more readily approximate the size of an average placemat and the napkin sheets being shorter such that they more readily approximate the size of an average napkin.

One of skill in the art reading this application should appreciate that the terms "rolled towels" and "paper towel roll(s)" are used in their broadest sense and neither should be strictly confined to "paper" products. "Rolled towels" as well as "paper towel rolls," as those terms are used herein, refer to rolled towels made both of the traditional paper material of common household paper towels (as well as all other materials known to be used for similar such purposes) and of any other suitable materials, such as cloth or felt. Furthermore, one of skill in

the art should appreciate that the word "towel" itself is used broadly herein and may encompass any substantially thin sheet of material capable of being rolled.

The preferred embodiment of the invention comprises a roll of paper towels wherein the roll is perforated such that it contains alternating sheets of two distinct sizes, the first sized sheets  
5 of such a length that they more closely correspond in size to that of a standard placemat (for instance, roughly 14 to 18 inches) and the second sized sheets of a shorter length such that they more closely correspond in size to that of a standard napkin (for instance, roughly 8 to 12 inches so that the napkin may be folded, as some standard napkins are, to an appropriate size).

Optionally printed thereon are decorative designs -- for instance, borders -- that also may serve  
10 to distinguish the edges of the placemats and napkins to facilitate easier determination of the perforated tear points on the roll.

As alluded to above, one of ordinary skill in the art will appreciate that the paper towel rolls of the preferred embodiment may be made of many different materials (for instance, the towels themselves may be made of paper, synthetic paper, cloth, felt and any other absorbent  
15 materials, liquid pervious materials, liquid impervious materials, combinations thereof or other suitable materials) and in many different shapes and sizes and by many different processes, and the perforations may be replaced by any other suitable lines of weakness. Furthermore, the alternating distances between the perforations may be varied to approximate various placemat sizes and napkin sizes and folding patterns. Other modifications, embodiments, and uses of the  
20 present invention will be apparent to those of ordinary skill in the art having reference to the following, together with the drawings.

## BRIEF DESCRIPTION OF THE DRAWINGS

The present invention will be described and understood more easily with reference to the accompanying drawings which are not limiting of the invention but are illustrative of the preferred and other embodiments.

5           **FIG. 1** is a perspective view of the preferred embodiment of the present invention without the optional decorative designs shown.

**FIG. 2** is an elevation view of the preferred embodiment of the present invention without the optional decorative designs shown.

10           **FIG. 3** is an elevation view of an alternative embodiment of the present invention without the optional decorative designs shown.

**FIG. 4** is a perspective view of the preferred embodiment in use with the optional decorative design borders shown.

## DETAILED DESCRIPTION OF THE INVENTION

15           With reference to the drawings, **Figures 1-4** depict the preferred and other embodiments of the present invention, rolled towels such as paper towel rolls **10**.

20           Referring to **Figures 1** and **2**, the preferred embodiment of the present invention without optional decorative designs such as borders, the paper towel roll **10** comprises a cardboard or other tube **12** with one or more webs of paper **14** (or other suitable material) wound thereon. If more than one web of paper (or other suitable material) is used, the webs are wound unto the tube such that they substantially overlap and form layers that may or may not substantially

adhere to each other when removed from the roll. Each web may be made of various materials, including without limitation paper, synthetic paper, cloth, felt and any other absorbent materials, fluid pervious materials, fluid impervious materials, fluid and air impervious materials or other suitable materials. Preferably (as shown in **Figures 1 and 2**), one web of absorbent material **14** is used.

The web of paper includes a plurality of perforations **16, 18, 20**, such perforations **16, 18, 20** being of two alternating distances **22, 24** apart, thus forming sheets **26, 28** of two alternating lengths. The first distance **22** between the first alternating set of perforations **16, 18** approximates the length of a standard placemat, thus making a sheet **26** the size of a placemat.

The second distance **24** between the second set of perforations **18, 20** approximates the length of a standard twice-folded square napkin (or other standard napkin size as in **Figure 3**), thus making a sheet **28** the size of a napkin. The perforations **16, 18, 20** are continued throughout the length of the web of paper **14**.

**Figures 1 and 2** disclose the preferred distances **22, 24** approximating the lengths of a standard placement and standard twice-folded napkin. The distances **22, 24** may, of course, be varied. **Figure 3** discloses one alternative set of variations in distances **22, 24**.

The general manufacturing techniques of the rolled towels of the present invention, including the paper towel rolls **10** of the preferred embodiment, are well-known in the art and may be easily adapted by one of ordinary skill in the relevant art to the manufacture of the present invention. For instance, United States Patent No. 5,802,974, issued to McNeil, discloses an apparatus and process for making paper towels.

Referring to **Figure 4**, two consecutive sheets **26, 28** have been removed from the paper towel roll **10** of **Figures 1** and **2** and arranged as part of a dinner setting. One sheet **26** forms the placemat and the other sheet **28** forms the napkin. In **Figure 4**, sheet **28** is shown after being folded in half along the diagonal and then folded in half again along the shortest altitude of the resulting triangle. Said sheets **26, 28** each include optional decorative designs in the form of borders **30, 32** that serve aesthetic purposes, as well as serving to more clearly define the edges of the sheets **26, 28** thus facilitating their removal from the paper towel roll **10** of **Figures 1** and **2** at the appropriate perforations **16, 18, 20**.

Other embodiments of the present invention may be envisioned by one of skill in the art.

For instance, the size, shape, material and manufacturing methods of the rolled towel may be varied. Of course, the precise distance between perforations may be varied to certain extents. And, the optional decorative designs -- for instance, general patterns or borders -- may be of many different patterns, colors and designs.